Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RAINER BUSCHULTE

Appeal No. 96-3101
Application 08/020,570[1]

ON BRIEF

Before McCANDLISH, Senior Administrative Patent Judge and FRANKFORT and NASE, Administrative Patent Judges.

McCANDLISH, Senior Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 1 through 30 under 35 U.S.C. § 103. No other claims are pending in the application.

[1] Application for patent filed February 22, 1993.

Appellant's invention relates to a circuit arrangement having an array of electrical circuits (21) for forming a reversible image on a printing form (2) in a printing machine. The printing form has a surface matrix (1) in which discrete regions or image points (3) define the image. Each electrical circuit is associated with a separate region or image point in the surface matrix. According to appealed claim 1, the only independent claim on appeal, each electrical circuit includes at least one threshold value switch (R1, R2 or R3). Claim 1 recites that the resistance of the threshold value switch is varied between low and high resistance states by a triggering operation to activate and deactivate the associated region or image point in the matrix.

A copy of appealed claim 1, as this claim appears in the appendix to appellant's brief, is appended to this decision.

The following reference is relied upon by the examiner as evidence of obviousness in support of his rejection under 35 U.S.C. § 103:

European Patent Application[2] 0 367 048 Oct. 21, 1989

Appealed claims 1 through 30 stand rejected under 35 U.S.C. § 103 as being unpatentable over the cited European patent document. The examiner's main position is that the threshold value switch recited in claim 1 does not distinguish from the transistor 16 in each of the image point addressing circuits in the European patent document (see pages 4 and 5 of the answer). In particular, the examiner has made the following findings with regard to this reference:

> European patent 367 048 contains a circuit similar to applicant's for controlling activated regions of a print form. As shown in figure 2, each region of the surface matrix is addressable by specific voltage applications to the appropriate transistor. The transistors act as switches to each point on the matrix while the capacitors are used to store a charge that indicates that the given point is activated. All points that are ?activated? will attract and

[2] According to the PTO translation branch, U.S. Patent No. 5,109,240 (copy attached), which has now been cited by the examiner on page 2 of his answer in this appeal, is the equivalent of this European patent document. Our understanding of the European patent document is based on Patent No. 5,109,240.

> hold ink. Once all the activated points have been charged, the print form is used to print the desired image. This circuit arrangment [sic, arrangement] of the ‹048 patent ?activates and de-activates regions of a surface matrix? as claimed. The transistors used in ‹048 act as the recited ?threshold value switches?. As is conventional in the art of electronic switching, transistors are used to switch between on and off states. When no voltage is applied to the gate of the transistors, they are in a non-conducting (high resistance or off) state. When a positive voltage is applied to the gates of the transistors in the ‹048 circuit, the transistors are in a low resistance conducting ?on? state. Therefore the transistors in ‹048 act as the recited ?threshold value switches?. [Answer, page 3.]

We have carefully considered the issues raised in this appeal together with the examiner's remarks and appellant's arguments. As a result, we will sustain the rejection of claims 1 through 12 and 14 through 30, but not the rejection of claim 13.

In presenting various arguments in the argument section commencing on page 26 of the brief, appellant does not expressly refer to any particular claim with the exception of

claim 1. With regard to claim 1 (see page 30 of the brief), the only limitation expressly argued as a distinction over the European patent document is the recitation that the resistance of the threshold value switch is varied between its lower and higher resistance states for activating and deactivating the associated image point or ?region? as it is called in the claim. We cannot agree with appellant's position for the reasons stated by the examiner as quoted supra. When rendered conductive by a triggering voltage, the transistor 16 of the European patent document will have a low resistance state, and when rendered nonconductive by reducing the base or gate voltage to zero, the transistor 16 will have a high resistance state.

Admittedly, the transistor 16 in the addressing circuit of the European patent document is a three terminal device, not a two terminal device as argued by appellant on page 28 of the brief. However, none of the appealed claims is limited to a two terminal switch with the exception of claim 13. Therefore, as far as claims 1 through 12 and 14 through 30 are concerned, this argument, like others made in the argument

section of the brief, is without merit because it is well established patent law that features not claimed may not be relied upon to support patentability. See In re Self, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982) and In re Richards, 187 F.2d 643, 644-45, 89 USPQ 64, 66 (CCPA 1951).

Appellant's argument on page 26 of the brief that the European patent document ?does not . . . . have hydrophilic and hydrophobic image points? is also without merit. In the first place, none of the appealed claims requires that the image points or ?regions,? as they are called in the claims, be hydrophilic or hydrophobic. Accordingly, this feature also may not be relied upon to support patentability. Id.

Furthermore, contrary to appellant's argument, the European patent document does disclose that the image points or ?domains,? as they are called in this patent document, become hydrophobic upon being depolarized and, conversely, hydrophilic upon being polarized. See column 2, lines 40-49 of

Patent No. 5,109,240.

On pages 27-29 of the brief, appellant asserts that the use of a threshold value switch as an addressing device has an advantage which is lacking in the addressing circuit of the European patent document. In particular, appellant asserts on page 29 of the brief that:

> [u]sing such a threshold value switch as an addressing device has the significant advantage that the threshold value switch, once it has been addressed by the voltage pulse, ?remembers? that is [sic, it] has been selected and in this manner it maintains the selected matrix point in the selected state until it is later turned off.

With further regard to this addressing feature, appellant states:

> When a new image is to be printed, the plate is again being addressed, and

> according to an important feature the addressing can be performed while the old image is still being printed. This is possible because the addressing does not immediately affect the printing plate, since the addressing time takes about 15 minutes.

These arguments regarding the addressing feature are also unpersuasive. In the first place, it is significant to note that this addressing feature is not expressly disclosed in appellant's specification. In fact, appellant does not even explain how the low resistance state of the threshold switches R1 and R3 can be maintained if the addressing state on the associated X address line 24 is changed to a logical 0 (i.e., zero volts). More importantly, the argued addressing feature is not recited in the appealed claims. Nor is it necessarily inherent from the claimed details of the electrical circuit. Appellant's arguments regarding this feature, therefore, are simply not commensurate with the scope of the claimed invention.

For the foregoing reasons we will sustain the examiner's § 103 rejection of claims 1 through 12 and 14 through 30, it

being noted that the patentability of claims 2 through 12 and 14 through 30 have not been separately argued. See In re Nielson,

816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987) and In re Burckel, 592 F.2d 1175, 1179, 201 USPQ 67, 70 (CCPA 1979).

With regard to claim 13, the examiner presents no reason why it would have been obvious to employ varistors in the addressing circuit of the European patent document. Such a modification is not suggested by the prior art especially in view of the fact that it would require a complete redesign of the circuit in the European patent document. We therefore must reverse the § 103 rejection of claim 13.

The examiner's decision rejecting the appealed claims is affirmed with respect to claims 1 through 12 and 14 through 30, but is reversed with respect to claim 13.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

HARRISION E. McCANDLISH, Senior Administrative Patent Judge	)
CHARLES E. FRANKFORT Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
JEFFREY V. NASE	)

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APPENDIX

1. Circuit arrangement for a reversible image build-up of a surface matrix of a printing form for a printing machine, wherein the surface matrix has regions which are activatable and de-activatable by repeated triggering, the circuit arrangement including a respective electrical circuit operatively associated with every region of the surface matrix activatable and de-activatable by the repeated triggering, comprising at least one threshold value switch with variable resistance states connected in each of the electrical circuits, said threshold value switch having a switching state variable by the triggering for varying the resistance of said threshold value switch between a lower and a higher resistance state for respectively activating and de-activating the region operatively associated therewith.